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PAGE 1 OF: 31

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FROM: GARY P. OAKESON

TRANSMITTED BY: BRENDA WISEMAN

OUR DOCKET NO.: 200401024-1

FOR: WEAK BASE MODIFICATION OF POROUS INK-JET MEDIA COATING FOR ENHANCED IMAGE QUALITY

SUBJECT: APPEAL BRIEF

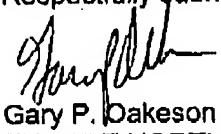
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

Attached please find an Appeal Brief for Docket No. 200401024-1, Application No. 10/774,917.

Thank you. We await your confirmation of receipt.

Respectfully submitted,



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PATENT APPLICATION

ATTORNEY DOCKET NO. 200401024-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Peter C. Zahrobsky

Confirmation No.: 8858

Application No.: 10/774,917

Examiner: Betelhem Shewareged

Filing Date: 02/06/2004

Group Art Unit: 1774

Title: WEAK BASE MODIFICATION OF POROUS INK-JET MEDIA COATING FOR ENHANCED IMAGE QUALITY

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 09/07/2007.

[X] The fee for filing this Appeal Brief is $510.00 (37 CFR 41.20).

[X] No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

[ ] (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

[ ] 1st Month $120	[ ] 2nd Month $460	[ ] 3rd Month $1050	[ ] 4th Month $1640

[ ] The extension fee has already been filed in this application.

[X] (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of $ 510. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

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[X] I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number (571)273-8300.
Date of facsimile: 10/04/2007
Typed Name: Brenda Wiseman
Signature: Brenda Wiseman

Respectfully submitted,
Peter C. Zahrobsky
By Gary P. Oakeson
Gary P. Oakeson
Attorney/Agent for Applicant(s)
Reg No.: 44,268
Date: 10/04/2007
Telephone: 801-566-6633

Rev 10/07(ApBrief)

DUPLICATE

PATENT APPLICATION

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

ATTORNEY DOCKET NO. 200401024-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

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Typed Name: Brenda Wiseman
Signature: Brenda Wiseman

Respectfully submitted,
Peter C. Zahrobsky
By Gary P. Oakeson
Gary P. Oakeson
Attorney/Agent for Applicant(s)
Reg No.: 44,266
Date: 10/04/2007
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Rev 10/07(ApBrief)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT:	Peter C. Zahrobsky
SERIAL NO.:	10/774,917
FILING DATE:	02/06/2004
CONF. NO.:	8858
FOR:	WEAK BASE MODIFICATION OF POROUS INKJET MEDIA COATING FOR ENHANCED IMAGE QUALITY
ART UNIT:	1774
EXAMINER:	Betelhem Shewareged
DOCKET NO.:	200401024-1

CERTIFICATE OF DEPOSIT UNDER 37 C.F.R. § 1.8

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10/4/2007
Date of Deposit

Brenda Wiseman
Brenda Wiseman

APPELLANTS' APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Mail Stop Appeal Brief -- Patents

Sir:

Appellants submit this Appeal Brief in connection with their appeal from the final rejection of the Patent Office, mailed June 14, 2007, in the above-identified application. A Notice of Appeal was mailed to the Board of Appeals on September 7, 2007.

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

Appellants and Appellants' legal representatives know of no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-23 and 25-47 remain pending. Claim 24 has been canceled. Claims 1-13 and 31-47 have been withdrawn. The claims on appeal in this application are claims 14-23 and 25-30.

IV. STATUS OF AMENDMENTS

No amendments to the presently pending claims have been made since the Office Action mailed on June 14, 2007, by which the final rejection of the pending claims was made.

V. SUMMARY OF CLAIMED SUBJECT MATTER

14. (previously presented) A print medium, comprising:

a) a media substrate (page 3, lines 3, 8-9, page 4, lines 25-29; page 6, line 30); and

b) an ink-receiving layer applied to the media substrate (page 3, lines 3, 9; page 6, lines 10-11, 30), said ink-receiving layer comprising:

i) a dispersion of inorganic particulates (page 3, lines 4-5, 11; page 6, line 20, 31);

ii) a polymeric binder (page 3, lines 5, 11-12, page 6, lines 20-21, 31); and

iii) gas generated bubbles (page 5, lines 21-24; page 6, lines 10-12, 32) located within the ink-receiving layer (page 3, lines 5-6; page 6, lines 10-12, 30-32), wherein the gas generated bubbles are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid (page 3, line 12; page 6, lines 21-23, 32; page 7, lines 1-2), and wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt% (page 10, lines 13-15).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issue presented for review is whether claims 14-23 and 25-30 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,492,005 (hereinafter "Ohbayashi") in view of U.S. Patent No. 6,129,785 (hereinafter "Schliesman") and U.S. Published Patent Application No. 2003/0064206 (hereinafter "Koyano").

VII. ARGUMENT

A. Prosecution History

The present application was filed as an original utility application on February 6, 2004 under the title WEAK BASE MODIFICATION OF POROUS INKJET MEDIA COATING FOR ENHANCED IMAGE QUALITY. Forty-seven claims were presented. The application was assigned Serial No. 10/774,917.

In the first Office Action mailed January 10, 2006, the Examiner examined claims 14-30 based on a provisional election made by Bradley Haymond during a telephone conference on December 14, 2005. The Examiner rejected claims 14-20, 25-28, and 30 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,165,606 (hereinafter "Kasahara"). Additionally, the Examiner rejected claims 22-23 and 29 under 35 U.S.C. 103(a) as being as being unpatentable over U.S. Patent No. 6,165,606 (hereinafter "Kasahara"). Notably, the Examiner objected to claims 21 and 24 as being dependent upon a rejected base claim, but indicated that such claims would be allowable if rewritten in independent form.

Appellants submitted a response to the Patent Office on April 3, 2006. In order to expedite prosecution, Appellants amended the claims according to the Examiner's suggestion by incorporating the elements of claim 24 into independent claim 14. As such, the amended claim set was thought to be allowable according to the Examiner's explicit statements that claim 24 constituted "allowable subject matter." See Office Action dated January 10, 2006, page 6.

A second Office Action was mailed on June 21, 2006. In that Action, the Examiner withdrew the 35 U.S.C. § 102 and § 103 rejections. However, instead of allowing the claim set as indicated in the previous action, the Examiner performed a new search and issued new rejections. Specifically, the Examiner rejected claims 14-

23 and 25-30 under 35 U.S.C. 103(a) as being as being unpatentable over Kasahara in view of U.S. Patent No. 6,129,785 (hereinafter "Schliesman") and U.S. Publication No. 2003/0064206 (hereinafter "Koyano").

Appellants submitted a response to the second Office Action on September 20, 2006. In that response, Appellants argued that the combination of references did not teach each and every element of the pending claim set. Specifically, Appellants argued that the Examiner had not shown the elements of 0.4 wt% to about 10 wt% of the alkali metal or gas generated bubbles within the ink-receiving layer.

In a third Office Action mailed December 14, 2006, the Examiner withdrew the outstanding 35 U.S.C. § 103 rejection. Again, the Examiner performed a new search and issued a new single § 103 rejection. Notably, Appellants have done nothing that would require a new search. The Examiner rejected claims 14-23 and 25-30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,492,005 (hereinafter "Ohbayashi") in view of Schliesman and Koyano.

Appellants submitted a response to the Office Action on March 14, 2007. In that response, Appellants reiterated that the combination of references did not teach each and every element of the pending claim set. Specifically, Appellants argued that the Examiner had not shown the elements of 0.4 wt% to about 10 wt% of the alkali metal or gas generated bubbles within the ink-receiving layer. Additionally, Appellants provided a reaction schematic for the Examiner showing that the combination could not provide the gas generated bubbles as presently claimed.

In a fourth Office Action made final mailed June 14, 2007, the Examiner maintained the § 103 rejection from the previous Office Action.

Appellants submit that the Examiner has undergone a pattern where the refrences have been changed throughout the prosecution in order to issue new rejections rather

than advance the prosecution of the present application. Such tactics defeat the purpose of prosecution, consume a considerable amount of time and expense, and conflict with the directives of the MPEP, including MPEP 706.07 (regarding switching one set of references to another); MPEP 904.03 (regarding conducting new searches); and MPEP 707 (regarding the Patent Examiner's responsibilities, including using best references). Furthermore, each rejection issued by the Examiner has no more merit that the previous rejection. Finally, Appellants submit that each rejection issued throughout the prosecution, including the present Office Action, fails to teach the elements of the present claim set.

B. Appellants' invention

Appellants' invention provides a print medium comprising a media substrate; and an ink-receiving layer applied to the media substrate, where the ink-receiving layer comprises: i) a dispersion of inorganic particulates; ii) a polymeric binder; and iii) gas generated bubbles located within the ink-receiving layer, wherein the gas generated bubbles are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid, and wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt% .

C. The Primary and Secondary References

1. The Ohbayashi Reference

Ohbayashi discloses an ink-jet recording sheet comprising a water non-absorptive support and a porous ink absorptive layer having a polycondensation product on the support. See Abstract. The ink-absorptive layer can have inorganic particles. See col. 13, lines 32-34. Various additives can be added to the ink

absorptive layer including anti-fading agents, whitening agents, surface active agents, pH-adjusting agents, anti-foaming agents, lubricants, antiseptics, thickeners, antistatic agents, matting agents, and UV absorbers. See col. 16, lines 21-34. As noted by the Examiner, Ohbayashi discloses the use of hardeners, such as boric acid. See col. 15, lines 51-52. Notably, Ohbayashi does not disclose gas generated bubbles in its ink absorptive layer or in any other part of the recording sheet. Additionally, Ohbayashi does not teach an alkali metal being present in the ink absorptive layer at from about 0.4 wt% to about 10 wt%.

2. The Schliesman Reference

Schliesman discloses a coating composition of ink-jet recording medium comprising an aqueous suspension of absorptive silica pigment, a polyvinyl alcohol binder, and a cationic fixing agent, where the composition is dispersed at pH values in the range of 4.0 to 7.0. See Abstract.

3. The Koyano Reference

Koyano discloses a recording material having a pretreatment fluid with a viscosity of from 10 to 10,000 mPa·s. See Abstract. The pH of the pretreatment fluid is preferably controlled so as to be near neutral, i.e. pH of 7. See [0156]. The pretreatment fluid can include a pH controlling agent such as lithium hydroxide and lithium carbonate. See [0157].

D. Rejections Under 35 U.S.C. § 103(a)

1. Requirements for Prima Facie obviousness

The Examiner has rejected all of the pending claims under § 103(a) as being prima facie obvious over a number of references. The Patent and Trademark Office (PTO), through the Examiner, has the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1998). To satisfy this burden, the PTO must meet the criteria set out in M.P.E.P. § 706.02(j):

> [T]hree basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Moreover, the obviousness analysis must comply with the statutory scheme as explained by the Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), namely, consideration must be given to: (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of ordinary skill in the pertinent art, and (4) additional evidence, which may serve as indicia of non-obviousness.

An excellent summary of how the prior art must be considered to make a case of *prima facie* obviousness is contained in *In re Ehrreich et al.*, 220 U.S.P.Q. 504, 509-511 (CCPA 1979). There the court states that a reference must not be considered in a vacuum, but against the background of the other references of record. It is stated that the question of a § 103 case is what the reference(s) would "collectively suggest" to one of ordinary skill in the art. However, the court specifically cautioned that the

Examiner must consider the entirety of the disclosure made by the reference and avoid combining them indiscriminately.

It has been widely recognized that virtually every invention is a combination of elements and that most, if not all, of these will be found somewhere in an examination of the prior art. This reasoning lead the court, in *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 199 (Fed. Cir. 1983) to state:

> "...it is common to find elements or features somewhere in the prior art. Moreover, most if not all elements perform their ordained and expected function. The test is whether the claimed invention as a whole, in light of all the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made." (underlining added)

With the above background in mind, Appellants contend that the Examiner has not met this burden with respect to any of the claims on appeal. Particularly, Appellants submit that the PTO has failed to show that each and every element of the claimed invention is contained in the combined references. Appellants now turn to a discussion of the individual rejections at issue, and the references on which they are based.

2. Ohbayashi in view of Schliesman and Koyano

Claims 14-23 and 25-30 were rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Ohbayashi in view of Schliesman and Koyano. Appellants respectfully assert the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness in the present rejection. The Examiner has not shown each and every claim limitation in the prior art. Specifically, the element of an alkali metal present in the ink-receiving layer at from about 0.4 wt% to

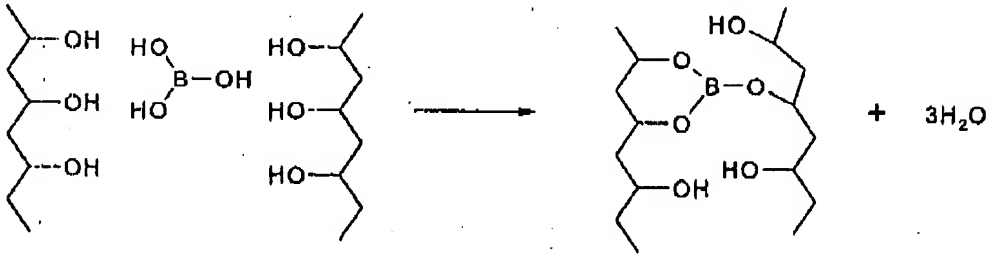
about 10 wt% has not been shown. Additionally, the element of gas generated bubbles located within the ink-receiving layer has not been shown.

As previously discussed, Ohbayashi teaches an ink-jet recording sheet with a recording layer containing a binder and inorganic particles. Ohbayashi further teaches generally of the use of a polyvinyl alcohol or derivative thereof as a binder, boric acid as an additive hardening agent, and potassium carbonate as a pH-adjusting agent. Schliesman is cited to show ink jet recording mediums having a coating composition with a pH range of 4.0 to 7.0. Koyano is cited by the Examiner to show lithium compounds used as pH controlling agents. Specifically, Koyano specifically teaches the use of lithium hydroxide and lithium carbonate as effective pH controlling agents.

However, none of the references teach the alkali metal being present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%, as claim 14 requires. The potassium carbonate of Ohbayashi cited by the Examiner is taught as an additive amongst a laundry list of other possible additives such as anti-fading agents, whitening agents, surface active agents, anti-foaming agents, lubricants, antiseptics, thickeners, antistatic agents, matting agents, and UV absorbers. Ohbayashi does not further elaborate on the use of potassium carbonate other than this brief listing, and certainly does not teach the required weight percentages. Likewise, neither Schliesman nor Koyano teach the required weight percentages. Even though Koyano exemplifies the use of lithium hydroxide in various amounts, such disclosure is not applicable to the present invention as lithium hydroxide is not a weak base.

As none of the references, either alone or in combination, teach the distinct and recited claim element of an alkali metal present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%, a *prima facie* case of obviousness has not been presented.

Furthermore, and even more notably, none of the references, either alone or in combination, teach the gas generated bubbles in the ink receiving layer. The gas generated bubbles of the present invention are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid. The Examiner relies solely on an inherency argument in that due to the presence of potassium carbonate and boric acid as presented in Ohbayashi, they would react and form bubbles of the claimed diameter. However, this is clearly not the case based on the explicit teachings of Ohbayashi. Ohbayashi teaches that boric acid is used as a hardening agent for polyvinyl alcohol (a reaction that is well known). Such a reaction is shown by the following reaction schematic:



As shown above, when boric acid is used in this fashion, it is consumed during the cross-linking process. Therefore, boric acid could not subsequently react with potassium carbonate to generate the gas bubbles as recited in independent claim 14. In other words, Ohbayashi cannot use boric acid in the manner alleged by the Examiner since boric acid is consumed (and neutralized) during the cross-linking reaction. As previously noted, the use of boric acid in this fashion (as a hardening agent) is well-known in the art. Therefore, based on the teachings of Ohbayashi, boric acid could not be used to generate gas bubbles.

Additionally, neither Schliesman nor Koyano teach the generating of gas bubbles. As none of the references, either alone or in combination, teach the distinct and recited claim element of generated gas bubbles in the ink-receiving layer, a *prima facie* case of obviousness has not been presented.

The Examiner has responded that the above arguments are not persuasive since the potassium carbonate and the boric acid in Ohbayashi have been disclosed by Appellants as forming gas generated bubbles; i.e., Ohbayashi then must also form gas generated bubbles. However, such an inherency argument is misplaced.

Specifically, Ohbayashi does not teach the use of potassium carbonate and boric acid together. The Examiner has merely chosen these two elements from amongst hundreds of possible combinations disclosed in Ohbayashi. One skilled in the art could not duplicate the present disclosure based on Ohbayashi alone or in combination with Schliesman and Koyano, since Ohbayashi does not disclose gas generated bubbles, does not disclose the presently claimed combination of potassium carbonate and boric acid (or any other combination that would provide gas generated bubbles), and explicitly teaches that boric acid is used as a hardener; a process that consumes boric acid and neutralizes it, as previously discussed.

Furthermore, if potassium carbonate were combined with boric acid as presently disclosed, such a reaction would frustrate the hardening described in Ohbayashi, thereby destroying the function of Ohbayashi. As such, Ohbayashi actually teaches away from the use of boric acid as presently disclosed.

As Appellants have raised the issue of teaching away, Appellants would like to review the current case law regarding teaching away for the Board's convenience. The Court of Appeals for the Federal Circuit has clearly stated that "an applicant may rebut a prima facie case of obviousness by showing that the prior art teaches away

from the claimed invention in any material respect." In re Petersen, 315 F.3d 1325, 1331 (Fed. Cir. 2003). The Court has also stated that "[w]e have noted elsewhere, as a 'useful general rule,' that references that teach away cannot serve to create a prima facie case of obviousness." (emphasis added) McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1354 (Fed. Cir. 2001). In identifying the appropriate standard for teaching away, the Court has further stated:

> "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be **discouraged from following the path set out in the reference**, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, **a reference will teach away if it suggests** that the **line of development** flowing from the reference's disclosure **is unlikely to be productive** of the result sought by the applicant." (emphasis added) In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994).

Clearly in the present case, the line of development flowing from the Ohbayashi reference is unlikely to be productive of the result sought by the Appellant since Ohbayashi uses boric acid as a hardener, which is consumed and neutralized during the hardening process, and therefore, could not produce gas generated bubbles.

Additionally, Appellants wish to address dependent claims 15, 22, and 23. The Examiner has stated that "the use of lithium containing pH adjusting agent such as lithium carbonate is well known . . ." in citing Koyano. However, a close inspection of Koyano reveals that such compounds are used to maintain the pH near neutral or even as a basic solution. See [0156]. Therefore, one skilled in the art would not use such a well-known basic compound to achieve the acidic pHs as found in dependent claims 22 and 23 or the excess acidic solution found in claim 15. Likewise, one skilled in the art would not use a basic pH adjuster, including the potassium carbonate, of Ohbayashi. As such, with regards to dependent claims 15,

22, and 23, the present rejection would not only destroy the functionality of the gas bubble formation, but would also destroy the functionality of achieving the recited pH.

Because the asserted combination fails to teach every element of independent claim 14 and the respective dependent claims, including the alkali metal present in the ink-receiving layer at from about 0.4 wt% to about 10 wt% and the gas generated bubbles in the ink-receiving layer, Appellants submit that these claims present patentable subject matter, and the rejections of these claims should be overturned.

E. Conclusion

Appellants respectfully submit that the claims on appeal set forth in the Appendix are patentably distinct from the asserted prior art references. Particularly, none of the asserted combinations of references would teach one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a) to arrive at the presently claimed invention. For at least these reasons, Appellants respectfully request that the Board of Appeals reverse the rejection and remand the case to the Examiner for allowance.

Dated this 4th day of October, 2007

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VIII. CLAIMS APPENDIX

1. (withdrawn) A method of producing a print medium, comprising steps of:

a) preparing a coating composition having an acidic pH, said coating composition comprising:

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) a weak base comprising a salt of an alkali metal and a weak acid; and

b) coating a media substrate with the coating composition to form an ink-receiving layer thereon.

2. (withdrawn) A method as in claim 1, further comprising a step of including an acid in the coating composition that is reactive with the weak base.

3. (withdrawn) A method as in claim 2, wherein the acid is provided by an acidic cross linking agent.

4. (withdrawn) A method as in claim 1, wherein the weak base generates gas bubbles as a result of the acidic pH.

5. (withdrawn) A method as in claim 4, wherein the gas bubbles are CO_2 bubbles.

6. (withdrawn) A method as in claim 1, wherein the weak base is selected from the group consisting of alkali carbonate salt, alkali bicarbonate salt, and mixtures thereof.

7. (withdrawn) A method as in claim 1, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

8. (withdrawn) A method as in claim 7, wherein the alkali metal is sodium.

9. (withdrawn) A method as in claim 7, wherein the alkali metal is lithium.

10. (withdrawn) A method as in claim 1, wherein the pH of the coating composition is from about 2.0 to about 6.0.

11. (withdrawn) A method as in claim 10, wherein the pH of the coating composition is from about 3.0 to about 4.5.

12. (withdrawn) A method as in claim 1, wherein the salt is added to the coating composition at from about 0.001 wt% to about 10 wt%.

13. (withdrawn) A method as in claim 1, wherein the media substrate is a coated media substrate, and the coating composition is a topcoat to be applied to the coated media substrate.

14. (previously presented) A print medium, comprising:

a) a media substrate; and

b) an ink-receiving layer applied to the media substrate, said ink-receiving layer comprising:

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) gas generated bubbles located within the ink-receiving layer, wherein the gas generated bubbles are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid, and wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%.

15. (original) A print medium as in claim 14, wherein the ink-receiving layer contains excess amounts of the acid.

16. (original) A print medium as in claim 14, wherein the acid is provided by an acidic cross linking agent.

17. (original) A print medium as in claim 14, wherein the ink-receiving layer contains an excess of the weak base.

18. (original) A print medium as in claim 14, wherein the weak base is selected from the group consisting of a carbonate, a bicarbonate, and mixtures thereof.

19. (original) A print medium as in claim 14, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

20. (original) A print medium as in claim 19, wherein the alkali metal is sodium.

21. (original) A print medium as in claim 19, wherein the alkali metal is lithium.

22. (original) A print medium as in claim 14, wherein the pH of the ink-receiving layer is from about 2.0 to about 6.0.

23. (original) A print medium as in claim 22, wherein the pH of the ink-receiving layer is from about 3.0 to about 4.5.

24. (canceled).

25. (original) A print medium as in claim 14, wherein the ink-receiving layer has an average thickness of from about 10 μm to about 60 μm.

26. (original) A print medium as in claim 14, wherein the bubbles have an average diameter of less than about 10 μm.

27. (original) A print medium as in claim 26, wherein the bubbles have an average diameter of from about 0.01 μm to about 0.1 μm

28. (original) A print medium as in claim 14, wherein the media substrate is a coated media substrate, and the ink-receiving layer is applied as a topcoat to the coated media substrate.

29. (original) A print medium as in claim 28, wherein the ink-receiving layer has an average thickness of from about 0.1 μm to about 10 μm.

30. (original) A print medium as in claim 29, wherein the alkali metal concentration in the ink-receiving layer applied as a topcoat is greater than is present in the coated media substrate.

31. (withdrawn) A printed image on a print medium, comprising:

a) a media substrate;

b) an ink-receiving layer applied to the media substrate, said ink-receiving layer comprising;

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) a salt of an alkali metal and a carbonate or bicarbonate species; and

c) an ink-jet ink printed on at least a portion of the ink-receiving layer.

32. (withdrawn) A printed image as in claim 31, wherein the ink-receiving layer also includes an acid reactive with the salt.

33. (withdrawn) A printed image as in claim 32, wherein the acid is provided by an acidic cross linking agent.

34. (withdrawn) A printed image as in claim 31, wherein the ink-receiving layer contains an excess of the carbonate or bicarbonate species.

35. (withdrawn) A printed image as in claim 32, wherein the acid and the salt generate CO_2 bubbles, said CO_2 bubbles providing voids which remain present in the ink-receiving layer.

36. (withdrawn) A printed image as in claim 31, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

37. (withdrawn) A printed image as in claim 36, wherein the alkali metal is sodium.

38. (withdrawn) A printed image as in claim 36, wherein the alkali metal is lithium.

39. (withdrawn) A printed image as in claim 31, wherein the pH of the ink-receiving layer is from about 2.0 to about 6.0.

40. (withdrawn) A printed image as in claim 39, wherein the pH of the ink-receiving layer is from about 3.0 to about 4.5.

41. (withdrawn) A printed image as in claim 31, wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%.

42. (withdrawn) A printed image as in claim 31, wherein the ink-receiving layer has an average thickness of from about 10 μm to about 60 μm.

43. (withdrawn) A printed image as in claim 35, wherein the bubbles have an average diameter of less than about 10 μm.

44. (withdrawn) A printed image as in claim 35, wherein the bubbles have an average diameter of from about 0.01 μm to about 0.1 μm.

45. (withdrawn) A printed image as in claim 31, wherein the media substrate is a coated media substrate, and the ink-receiving layer is applied as a topcoat to the coated media substrate.

46. (withdrawn) A printed image as in claim 45, wherein the ink-receiving layer has an average thickness of from about 0.1 μm to about 10 μm.

47. (withdrawn) A printed image as in claim 46, wherein the alkali metal concentration in the ink-receiving layer applied as a topcoat is greater than is present in the coated media substrate.

IX. EVIDENCE APPENDIX

(No matter presented)

X. RELATED PROCEEDINGS APPENDIX

(No matter presented)